REMARKS

In the Office Action mailed May 24, 2006, claims 1-21 were rejected.[1] Claims 15-17 were rejected under 35 U.S.C. §102(e) as being anticipated by Bengston (U.S. Pat. No. 6,728,947). Claims 1-7 and 18-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bengston in view of Nichols et al. (U.S. Pat. No. 6,018,730). Claims 8-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bengston.

With the present Amendment, claims 15-20 have been canceled and new claims 22-27 added to more clearly present the claimed invention.

In general, the present invention provides a system and method for processing workflows in real time to generate decisions based on dynamically executed checklists or task lists. FIG. 6 illustrates one example of a workflow that utilizes a "home mortgage purchase" checklist (84) according to the present invention. As shown in FIG. 6, an exemplary rule (e.g., a boolean expression) that requires a credit score greater than 600 as an entry condition, which dynamically determines whether or not the associated function or task of generating an instant offer (88) is performed. The parameter "600" is a data element stored in an associated data dictionary, and the user's credit score is obtained from user input. The use of entry conditions allows functions (or tasks) to be performed dynamically within the workflow, as the workflow checklist causes the functions (or tasks) to be accessed only as the associated entry conditions are met (i.e., evaluate to true). In that way, the workflow can perform many non-linear processing sequences in whatever sequence is dynamically determined during the execution of the workflow through the evaluation of entry conditions associated with the functions in a particular checklist. For a particular function (or task) whose entry conditions all evaluate to true, rule-based selection criteria within that function (or task) can then be processed. The selection criteria can resemble the entry conditions in form (e.g., as boolean expressions). FIG. 7 is a more detailed illustration of steps for processing selection criteria associated with

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[1]The Office Action Summary does not refer to pending claim 21. It is believed that this is a typographical error.

the "evaluate credit" function (86) of FIG. 6. In view of the foregoing, it can be recognized that the execution of a particular workflow will occur dynamically, with the particular order of processing according to the checklist is determined during execution upon receipt of user input rather than in a fixed, pre-determined sequence. Thus, where an administrative utility or workflow designer is provided according to the present invention, associations and rules governing workflow execution are determined, but the specific functions or tasks in a checklist or task list and the actual sequence of function processing in the checklist are determined during actual processing of the workflow.

Claim Rejections - 35 U.S.C. §103(a)

Claims 1-7 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bengston (U.S. Pat. No. 6,728,947) in view of Nichols et al. (U.S. Pat. No. 6,018,730).

Amended independent claim 1 requires a workflow management system that includes a compiled program kernel containing multiple differentiated tasks defined as separate functions with the compiled program, a graphical interface having a list of geometric shapes and a workspace, each geometric shape being an abstracted object-based representation of functions within the compiled program kernel, the workspace for organizing and linking multiple geometric shapes in an ordered arrangement of objects corresponding to an order in which the multiple differentiated tasks are performed by the compiled program kernel, a database for storing the arrangement of objects as a checklist as well as for storing entry conditions that are associated with each of the multiple differentiated tasks, and a data dictionary defining discrete data elements and data relationships. According to amended independent claim 1, the contents of the data dictionary are specific to a selected industry, and the entry conditions are evaluated by the compiled program kernel with respect to each of the multiple differentiated tasks such that a particular one of the multiple differentiated tasks is performed only if all of the entry conditions associated with that particular one of the multiple differentiated tasks evaluate to true.

Bengston discloses a workflow distributing apparatus and method. The system of Bengston coordinates a serial, assembly-line style workflow that is executed by a plurality of processing devices.

(Bengston, col. 4, line 66 to col. 6, line 3; FIG. 1). The system of Bengston is described with reference to coordinating printing workflows, where steps of the printing process are performed on devices at disparate locations. (E.g., Bengston, col. 1, ll. 10-47; FIG. 3). The workflow is automated so as not to require any user input while in process, and the workflow continues to until completion or until an error occurs. (Bengston, Abstract; col. 11, ll. 5-8 and 27-30; col. 14, ll. 35-39; FIG. 1). Processing by the Bengston system is decentralized, and performed sequentially by a number of different processing devices that push workflows between the processing devices in a linear fashion. (Bengston, col. 11, ll. 27-31; col. 12, line 58 to col. 13, line 8; FIG. 1). Bengston distinguishes its system from other known systems that utilize centralized processors to control the flow of information. (Bengston, col. 1, line 55 to col. 2, line 4). As noted on pages 10 and 14 of the Office Action, Bengston fails to show, teach or disclose a data dictionary or the use of a data dictionary.

Nichols et al. discloses a tutorial system installed on and run from a local workstation for helping to teach a student new skills. (Nichols, Abstract; FIG. 1). The system of Nichols et al. provides a simulated environment that students must understand and solve themselves. (Nichols et al., Abstract). Nichols et al. discloses the use of a domain model (or data dictionary) that facilitates communication of context-specific data across generic objects of an application. (E.g., Nichols et al., col. 22, ll. 18-39). The application utilizes a fixed architecture (i.e., workflow checklist) that does not include entry conditions associated with discrete functions in the checklist.

Neither Bengston nor Nichols et al. disclose or suggest a workflow management system that includes entry conditions that are evaluated by a compiled program kernel with respect to each of multiple differentiated tasks such that a particular one of the multiple differentiated tasks is performed only if all of the entry conditions associated with that particular one of the multiple differentiated tasks evaluate to true, as required by amended independent claim 1. Rather, both Bengston and Nichols et al. relate to non-dynamic workflow systems that proceed along a fixed, pre-determined sequence of processing tasks, because neither cited reference discloses or suggests the use of entry conditions. Bengston, for example,

is a "push" type of workflow system that "pushes" data in a pre-determined linear sequence between processing devices that perform sequential "tasks" in the checklist by passing the same workflow file to each and every processing device. (Bengston, FIG. 1). However, entry conditions as required by amended independent claim 1 establish rules that govern whether or not particular differentiated tasks are performed, and thereby dynamically determine how those tasks are performed during the execution of the workflow. In that way, the invention as defined by amended independent claim 1 permits the workflow to proceed in a manner that is not strictly pre-defined, but instead is dynamically determined in relation to associated entry conditions. Predetermined ordering of workflow processes, as with Bengston and Nichols et al., do not utilize such entry conditions. Thus, the cited references do not disclose or suggest each and every limitation of amended independent claim 1 the rejection under §103(a) should be withdrawn. Notification to that effect is requested.

Claims 2-7 and 21 depend from amended independent claim 1 and include all of the limitations of that base claim. Therefore, dependent claims 2-7 are all allowable with amended independent claim 1.

Claims 8-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bengston.

Amended independent claim 8 requires a workflow engine containing a plurality of discrete functions for performing task list processing, a workflow designer having an object-based interface for configuring task lists, and an industry-specific data dictionary defining discrete data elements and data relationships that are associated with each of the plurality of discrete functions of the workflow engine. According to amended independent claim 8, the workflow designer allows entry conditions to be defined and associated with any of the plurality of discrete functions, and each entry condition is evaluated by the workflow engine with respect to each of the plurality of discrete functions such that a particular one of the plurality of discrete functions is executed by the workflow engine only if all of the entry conditions associated with that particular one of the plurality of discrete functions evaluate to true. The workflow engine performs the discrete functions for which all associated entry conditions evaluate to true in an order

determined by the ordered task list to render a financial offer decision to a remote user.

The disclosure of Bengston is discussed above. Bengston does not disclose or suggest a workflow system that includes entry conditions that are evaluated by a workflow engine with respect to each of a plurality of discrete functions such that a particular one of the plurality of discrete functions is performed only if all of the entry conditions associated with that particular one of the plurality of discrete functions evaluate to true, as required by amended independent claim 8. Bengston further fails to disclose that a workflow engine perform the discrete functions for which all associated entry conditions evaluate to true in an order determined by the ordered task list to render a financial offer decision to a remote user. Rather, Bengston (and Nichols et al.) relate to non-dynamic workflow systems that proceed along a fixed, pre-determined sequence of processing functions, because Bengston does not disclose or suggest the use of entry conditions that establish rules governing whether or not particular discrete functions are performed, and thereby dynamically determine how those functions are performed during the execution of the workflow. Thus, the prior art of record does not disclose or suggest each and every limitation of amended independent claim 8 the rejection under §103(a) should be withdrawn. Notification to that effect is requested.

Claims 9-13 depend from amended independent claim 8, and include all of the limitations of the base claim. Therefore, dependent claims 9-13 are all allowable with amended independent claim 8.

Claims 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bengston (U.S. Pat. No. 6,728,947) in view of Nichols et al. (U.S. Pat. No. 6,018,730). With the present Amendment, claims 18-20 have been canceled, making the rejections of those claims moot, and new claims 25-27 presented to better clarify the claimed invention. The allowability of new claims 25-27 is discussed below.

Claim Rejections - 35 U.S.C. §102(e)

Claims 15-17 were rejected under 35 U.S.C. §102(e) as being anticipated by Bengston (U.S. Pat. No. 6,728,947). With the present Amendment, claims 15-17 have been canceled, making the rejections of those claims moot, and new claims 22-24 presented. The allowability of new claims 22-24 is discussed below.

New Claims

New independent claim 22 relates to a system for programmatically rendering a process-based decision. According to new independent claim 22, the system requires administrative tools, a decision database, a workflow engine, a dynamic data dictionary, and a two-way messaging system. The administrative tools are configured for creating process categories and checklists associated with each process and for modifying entry conditions and selection criteria associated with discrete tasks in each checklist. The entry conditions define rules that govern whether or not each of the discrete tasks is performed. The decision database is configured for storing the process categories, the checklists, the entry conditions and the selection criteria. The workflow engine is configured for automatically processing input from a remote user and generating an instant decision based on the checklist, the entry conditions and the selection criteria associated with the checklist, and the processed input associated with the entry conditions and the selection criteria. The workflow engine is also capable of securely transmitting the instant decision to the remote user, and is capable of brokering communications between the remote user and a process administrator associated with the instant decision (as well as real-time communications with any number of other parties involved in the transaction). Also according to new independent claim 22, the dynamic data dictionary is formatted in XML, and is configured for defining data elements and data relationships specific to a selected industry, such that the dynamic data dictionary provides a dynamic fetch and store interface with the decision database and is configured to provide, translate and modify data presentation with respect to both the remote user and the workflow engine.

Bengston does not show, teach or disclose each and every element of new independent

claim 22, because Bengston does not show, teach or disclose a workflow engine that allows an instant decision to be generated based on a checklist, entry conditions and selection criteria associated with the checklist, and processed input associated with the entry conditions and the selection criteria. Nor does Bengston show, teach or disclose a dynamic data dictionary formatted in XML that is configured to provide a dynamic fetch and store interface with the decision database and is configured to provide, translate and modify data presentation to both a remote user and the workflow engine. In contrast, Bengston discloses a system that operates in a serial, assembly line-type manner, where processing steps are performed sequentially by a number of different processors without any interface with a data dictionary. Decisioning based upon checklists, entry conditions and selection criteria establishes a dynamic workflow processing. This process according to Bengston does not involve the evaluation of entry conditions during workflow processing to dynamically determine if a particular task is performed by a particular processing device. Rather, Bengston discloses a fixed processing sequence, and that the administrative setup described with respect to FIG. 2 of Bengston in essence pre-determines the processing checklist in a fixed, non-dynamic order carried out by the processing devices in a serial manner. This is different from the system of claim 22, which requires entry conditions to be evaluated in order to determine whether or not particular tasks within a checklist are performed in order to reach an ultimate decision.

Thus, Bengston does not, show, teach or disclose each and every limitation of new independent claim 22.

New claims 23 and 24 depend from amended independent claim 22, and include all of the limitations of that base claim. Therefore, new dependent claims 23 and 24 are likewise allowable over the prior art of record on the same basis as new independent claim 22.

New independent claim 25 relates to a method for workflow processing and programmatic decision-making based on object-based processes stored in memory. The method of new claim 25 requires receiving input from a remote source, determining programmatically an input type according to the received input using sets of entry conditions that are associated with each of a plurality of differentiated

tasks and a data dictionary that defines data elements and data relationships used to process the entry conditions, retrieving automatically a stored process checklist from a decision database according to the input type using the data dictionary as an interface between the stored process checklist and the sets of entry conditions and as an interface between the entry conditions and both the data elements and the data relationships, processing programmatically the received information utilizing one or more of the plurality of differentiated tasks based on the entry conditions associated with the stored process checklist, rendering an automatic decision based on the processed received information, and communicating programmatically the automatic decision to the remote source. According to new independent claim 25, each set of entry conditions is evaluated with respect to each of the plurality of differentiated tasks such that a particular one of the plurality of differentiated tasks is performed only if all of the entry conditions associated with that particular one of the plurality of differentiated tasks evaluate to true. Moreover, contents of the data dictionary are specific to a selected industry, and each entry condition of the sets of entry conditions is based upon one or more of the data elements and the data relationships defined by the data dictionary.

Neither Bengston nor Nichols et al. discloses or suggests each and every limitation of new independent claim 25, because neither of those references discloses or suggests sets of entry conditions that are evaluated with respect to associated tasks such that a particular task in a stored process checklist is performed only if all of the entry conditions associated with that particular task evaluate to true. As discussed above, both Bengston and Nichols et al. relate to workflows that utilize a pre-determined checklist (or architechture) that does not utilize entry conditions to dynamically determine the processing of the tasks during execution of the workflow. Thus, neither Bengston nor Nichols et al. discloses or suggests each and every limitation of new independent claim 25, which is allowable over the prior art of record.

New claims 26 and 27 depend from amended independent claim 25, and include all of the limitations of that base claim. Therefore, new dependent claims 26 and 27 are likewise allowable over the prior art of record on the same basis as new independent claim 25.

CONCLUSION

Upon review of the cited art, applicant believes that all of the pending claims patentably define the invention over all of the art of record. Applicant believes the above amendments and remarks place all pending claims in allowable form and respectfully requests a Notice of Allowance.

The Commissioner is authorized to charge payment of any additional fees associated with this paper or credit any overpayment to Deposit Account No. 11-0982.

Respectfully submitted,

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